

Analytical reinterpretation of ATLAS dark matter mediator searches with final-state jets

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An important part of the ATLAS dark matter (DM) search programme is comprised of searches for new resonances (dark matter mediators) decaying to hadronic final states. This talk will give an overview of one such analysis: the recently-published search for low-mass dark-matter mediators decaying to jets, with an associated high-pT photon. This search triggers on an associated photon in order to significantly extend the sensitive region of ATLAS for dark matter mediators and generic resonances. In particular, we cover an new method of reinterpretation of the resulting limits in the case of non-discovery to other model spaces.

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